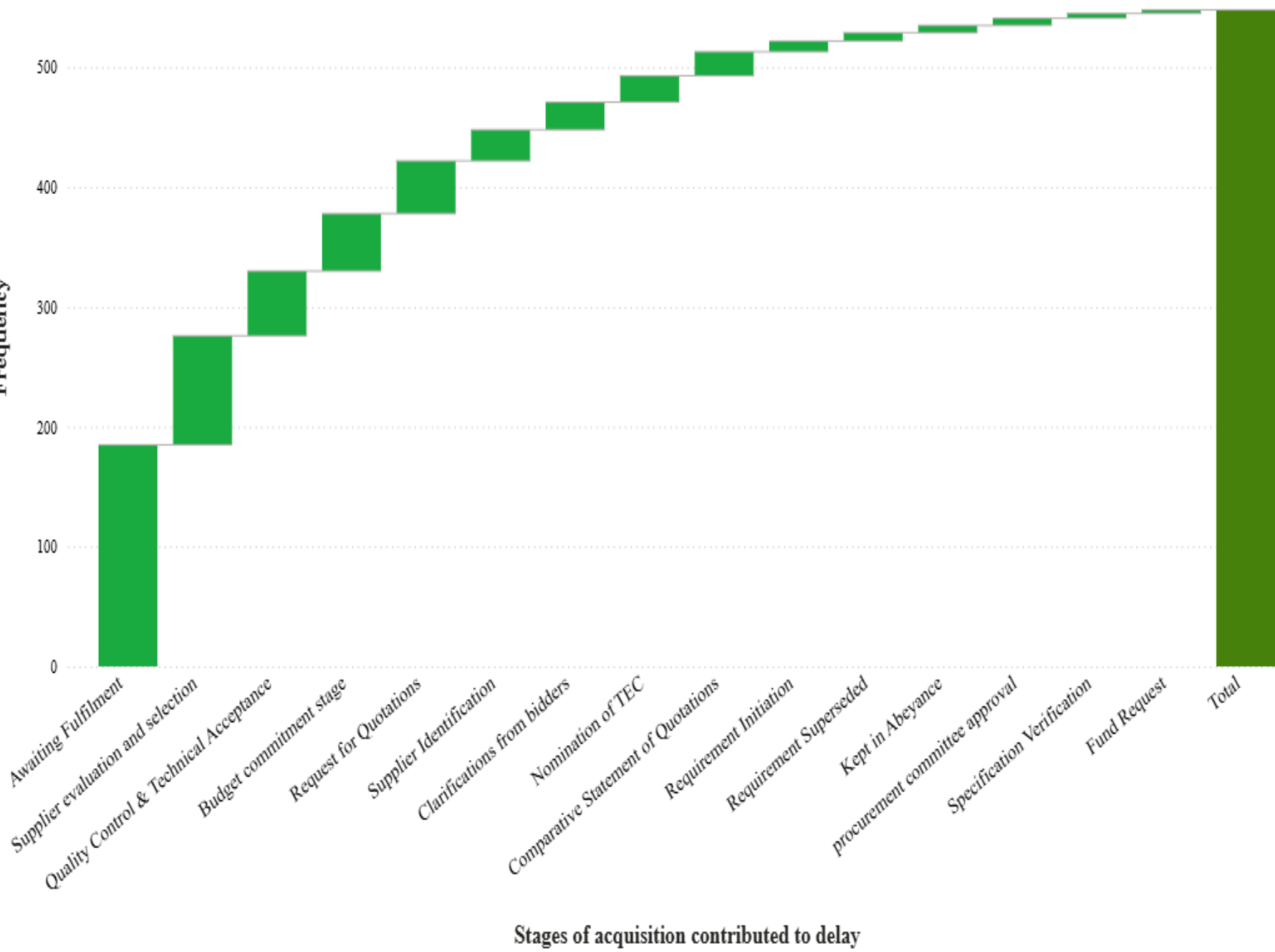


Abstract

The operational availability and the readiness of Sri Lanka Navy Fleet is essential towards sustaining maritime defense capability of Sri Lanka and spare parts plays a critical role in continuing consistent operational availability. This study aims to identify the major bottlenecks of spare parts acquisition and analyze the root causes of the acquisition bottlenecks within the spare parts acquisition framework focusing on the acquisitions under the Staff Officer Procurement, Spare Parts Distribution Center (SOP[SPDC]). The study applies pareto analysis, modified Ishikawa (Fishbone) and Five-Whys framework for the analysis. Pareto analysis revealed that awaiting fulfillments, supplier evaluation and selection, quality control and technical acceptance, budget constraints and request for quotations were the major bottlenecks of spare parts acquisitions in SOP(SPDC) and each bottleneck consists of root causes that are inherent at each stage. The analysis indicated that the root causes are multidimensional, encompassing human-related factors, inefficiencies within internal processes, and external constraints stemming from supplier dynamics.

Methods

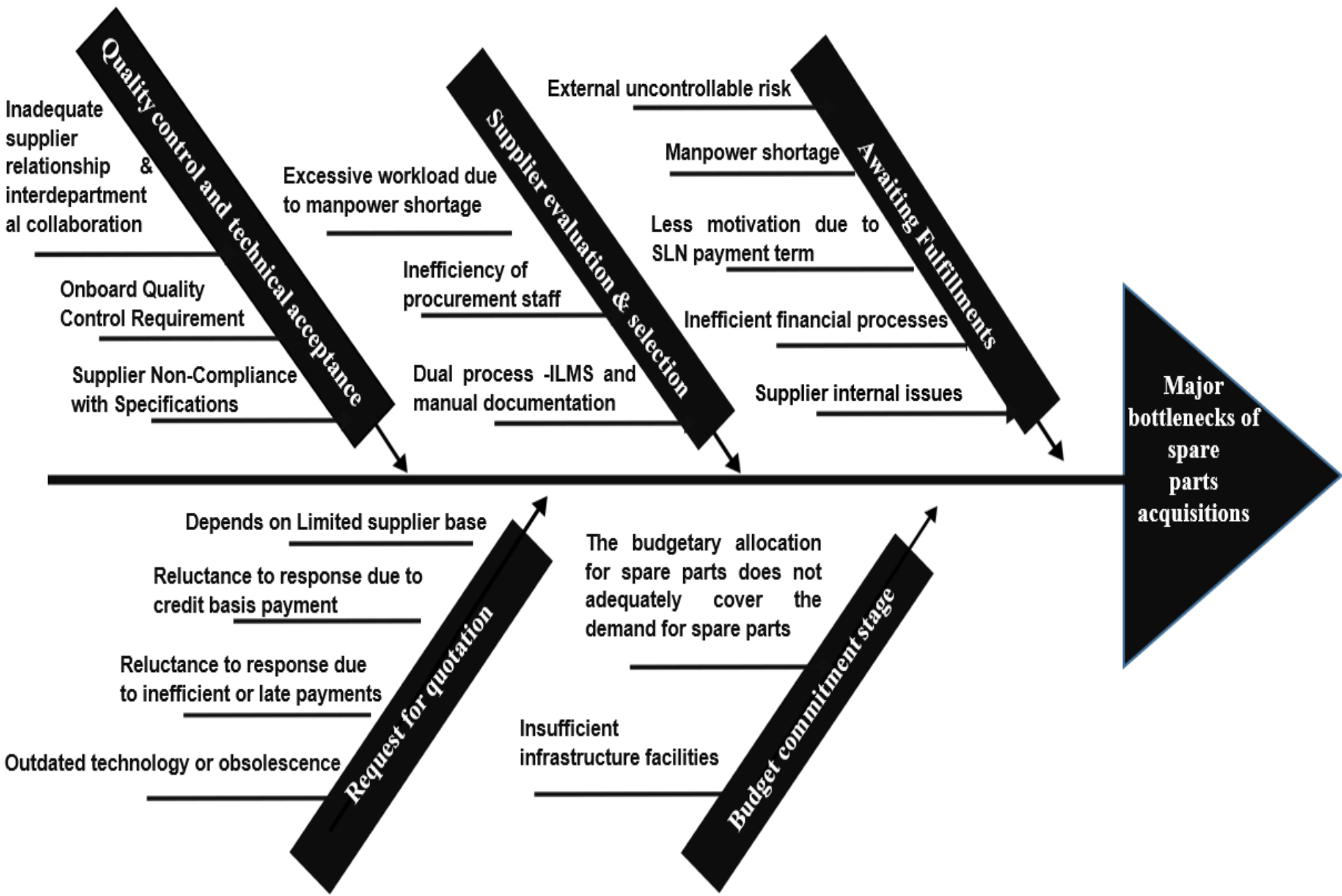
The study applies pareto analysis to prioritize major bottlenecks in spare parts acquisition using spare part procurement data and employs a modified Ishikawa (Fishbone) and Five-Whys framework to determine underlying root causes for such bottlenecks.



Results

Root causes for following major bottlenecks were identified.

- Awaiting fulfillments
- Supplier evaluation and selection
- Quality control and technical acceptance
- Budget commitment stage
- Request for quotations



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